1. Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?
   Answer: The top three variables in the model which contribute most towards the probability of a lead getting converted are:
   1. Tags_Lost to EINS
   2. Tags_Closed by Horizzon
   3. Tags_Will revert after reading the email

2. What are the top 3 categorical/dummy variables in the model which should be focused the most on in order to increase the probability of lead conversion?
   Answer: The top three categorical/dummy variables in the model which should be focused the most on in order to increase the probability of lead conversion are:
   1. Tags
   2. Lead Source
   3. Last Notable Activity

3. X Education has a period of 2 months every year during which they hire some interns. The sales team, in particular, has around 10 interns allotted to them. So during this phase, they wish to make the lead conversion more aggressive. So they want almost all of the potential leads (i.e. the customers who have been predicted as 1 by the model) to be converted and hence, want to make phone calls to as much of such people as possible. Suggest a good strategy they should employ at this stage.
   Answer: The business requirement can be simplified as the team wants to improve the sensitivity of the model in identifying even the fainter of possibly convertible leads. To do so, the probability cut-off/threshold needs to be lowered. However, this comes at the expense of a surcharge in labour and loss of specificity. In the attempt to not miss any lead that is possible to convert, the model may end up misclassifying non-convertible leads as convertible. If left unchecked, this could pull down the profit for the company drastically.
   Since the tenure of change is small and extra interns have been hired by X-Education, it is possible to deploy an economically-feasible strategy for the business requirement. The probability cut-off can be lowered while keeping the specificity reduction under check to improve the sensitivity of the model, thereby making the lead conversion more aggressive.

4. Similarly, at times, the company reaches its target for a quarter before the deadline. During this time, the company wants the sales team to focus on some new work as well. So during this time, the company's aim is to not make phone calls unless it's extremely necessary, i.e. they want to minimize the rate of useless phone calls. Suggest a strategy they should employ at this stage.

Answer: The requirement here is the exact opposite of the one above. Business wants to be more conservative and doesn't want to waste time, effort or money on leads that wouldn't convert eventually. The focus here is on the ability to red-flag leads that wouldn't convert or the team wants to improve the specificity of the model. This can be achieved by increasing the probability cut-off. However, as discussed before, this would also mean some fraction of convertible leads being tagged otherwise. Lost opportunity would mean lost profit. So, the company wouldn't want to lose many of these to cross the quarter-end target.

In simple terms, X Education needs to increase the probability cut-off by a nominal amount such that the specificity improves without hampering the sensitivity much.